

# Ticket Machine Board Instructions Rev. 1.07

## ArcadeUpkeep.com

Thank you for purchasing our Ticket Machine Board from ArcadeUpkeep.com! This board works with both Deltronic and Entropy ticket dispensers along with many others. Through simple DIP switch settings many different modes of operation are available including making any machine NJ compliant and operating multiple ticket dispensers at once.

### **Installation Instructions:**

#### Single Dispenser Instructions:

Step 1: Set the DIP switch settings according to the instructions in the DIP Switch Instructions section below. The DIP switches must be set while the board is powered down; new settings won't be installed until the board is powered off.

Step 2: Unplug your ticket dispenser from the game, it should be a 4 pin connector as found in your ticket board kit.

Step 3: There should be a jumper connector already on your ticket boards DISP 2 port, if it is not please connect it to this port.

Step 4: Using the provided adhesive pads and zip ties, stick the board to any easily accessible (but out of the way) place you see fit. I usually find under the dispenser, above the ticket stack to be a convenient place, although right on the side of the dispenser has also been used.

Step 5: Connect the female connector onto your games ticket dispenser and plug it into the DISP 1 port on the ticket board.

Step 6: Connect the male connector onto the game's ticket connector and plug it into the GAME port on the ticket board.

Step 7: The board should now be running with your DIP switch settings installed. Test the ticket dispenser by holding down the Ticket Sw for about 2 seconds and verify a ticket is dispensed from your machine, if it is then all is well.

Step 8: Test game play and ticket payout. If incorrect, please refer to the DIP Switch Instructions or the Common Problems Section.

#### Two Dispenser Instructions:

Step 1: Set the DIP switch settings according to the instructions in the DIP Switch Instructions section below. The DIP switches must be set while the board is powered down; new settings won't be installed until the board is powered off.

Step 2: Unplug both ticket dispensers from the game, they should be 4 pin connectors as found in your ticket board kit.

Step 3: Using the provided adhesive pads and zip ties stick the board to any easily accessible (but out of the way) place you see fit. \*Note - Under the first dispenser, above the ticket stack, is typically a convenient place; however on the side of the first dispenser has also been used.

Step 4: Connect one of the female connectors onto your games first ticket dispenser and plug it into the DISP 1 port on the ticket board.

Step 5: Connect the other female connector onto your games second ticket dispenser and plug it into the DISP 2 port on the ticket board. This connector must be purchased separately it is not included in the kit.

Step 6: Connect the male connector onto the game's first ticket connector and plug it into the GAME port on the ticket board, the other game's ticket connector will not be used and can be left alone.

Step 7: The board should now be running with your DIP switch settings installed. Test the ticket dispensers by holding down the Ticket Sw for about 2 seconds and verify a ticket is dispensed from each dispenser, if it is then all is well.

Step 8: Test game play and ticket payout. If incorrect, please refer to the DIP Switch Instructions or the Common Problems Section.

#### NJ Mode Single Board Instructions:

Step 1: Set the DIP switch settings according to the instructions in the DIP Switch Instructions section below. The DIP switches must be set while the board is powered down; new settings won't be installed until the board is powered off.

Step 2: Unplug your ticket dispenser from the game, it should be a 4 pin connector as found in your ticket board kit.

Step 3: There should be a jumper connector already on your ticket boards DISP 2 port, if it is not please connect it to this port.

Step 4: Using the provided adhesive pads and zip ties, stick the board to any easily accessible (but out of the way) place you see fit. \*Note - Under the first dispenser, above the ticket stack, is typically a convenient place; however, on the side of the first dispenser has also been used.

Step 5: Connect the female connector onto your games ticket dispenser and plug it into the DISP 1 port on the ticket board.

Step 6: Connect the male connector onto the game's ticket connector and plug it into the GAME port on the ticket board.

Step 7: The board should now be running with your DIP switch settings installed. Test the ticket dispenser by holding down the Ticket Sw for about 2 seconds and verify a ticket is dispensed from your machine, if it is then all is well.

Step 8: Test game play and verify your set number of tickets are dispensed. If incorrect, please refer to the DIP Switch Instructions or the Common Problems Section.

#### NJ Mode Dual Board Instructions:

Step 1: Set the DIP switch settings according to the instructions in the DIP Switch Instructions section below for both boards. The NJ ticket amount doesn't need to be the same amount, they will pay out whichever amount you have set. The DIP switches must be set while the boards are powered down; new settings won't be installed until the boards are powered off.

Step 2: Unplug your first ticket dispenser from the game, it should be a 4 pin connector as found in your ticket board kit.

Step 3: Using the provided adhesive pads and zip ties, stick the board to any easily accessible (but out of the way) place you see fit. \*Note - Under the first dispenser, above the ticket stack, is typically a convenient place; however on the side of the first dispenser has also been used.

Step 4: Connect the female connector onto your games ticket dispenser and plug it into the DISP 1 port on the ticket board.

Step 5: Repeat Steps 2-4 for your second ticket dispenser.

Step 6: Plug the dual board harness into DISP 2 on both ticket boards. This harness must be purchased separately, it is not included in the kit. Verify the board is running in NJ Mode with Dual Board Mode enabled on both ticket boards, DIP 9 and 10 should be ON on both boards.

Step 7: Connect the male connector onto the game's ticket connector and plug it into the GAME port on both ticket boards.

Step 8: The board should now be running with your DIP switch settings installed. Test the ticket dispenser by holding down the Ticket Sw for about 2 seconds and verify a ticket is dispensed from your machine, repeat with the second board, if both paid out then all is well.

Step 9: Test game play and ticket payout. If incorrect, please refer to the DIP Switch Instructions or the Common Problems Section.

## **Operation Instructions:**

DIP switches must be set while the board is powered down, new settings won't be installed until the board is powered off.

Ticket Switch Short Press can be used to reset the board after it has shut down for being out of tickets. Press the button once to signal it to start paying out again.

Ticket Switch Long Press is used to test the ticket dispensers. Pressing and holding the button for about 2 seconds will trigger the board to pay out a ticket from the first dispenser, then the second if it is connected. After completing both it will flash the LED to signal it has completed. If it is in dual board mode it will also trigger the second board to pay out its set NJ amount to test it as well.

LED is used to show you the current board status. Normal operation is off. If the LED is flashing there is an error in your DIP switch settings. If the LED is solid on then one or both of the ticket dispensers is out of tickets and needs to be refilled.

Empty Tickets will trigger the board to pay out of the other ticket dispenser if it is connected and able to do so. If in single dispenser mode it will keep track of the tickets it needs to pay out and wait to pay them until the dispenser has been refilled. If in NJ mode it will not track how many it must pay out as every payout is the same; it will pay out the amount it's set for and stop.

Refilling Dispensers is done as normal, there should be no need to press any buttons in the game as the board is keeping track of the number it needs to pay out (except in NJ mode where they are all the same.) By simply putting tickets in the dispenser it should trigger the board to start paying out again. If it does not, a short press to the Ticket Sw on the board will start the pay out again.

## **DIP Switch Instructions:**

If you are using the board in NJ Mode turn DIP 10 ON, otherwise for normal operation turn DIP 10 OFF. Please refer to correct instructions below.

NORMAL OPERATION:

DIP 1-4: These switches set the number you want the board to divide your tickets by. Use the chart below to set them according to your needs. DIP 1 and 2 control dispenser 1. DIP 3 and 4 control dispenser 2. NOTE: If only using one dispenser set both to the same amount. NOTE: If using 2 dispensers, dispenser 1 must be set equal to or higher than dispenser 2. NOTE: Setting dispenser 1 OFF will stop all ticket payouts on both dispensers.

Dispenser 1 Ticket Amount	DIP 1	DIP 2
OFF, NO TICKET PAYOUT	OFF	OFF
Divide by 2	ON	OFF
Divide by 5	OFF	ON
Divide by 10	ON	ON

Dispenser 2 Ticket Amount	DIP 3	DIP 4
1, Normal Ticket Amount	OFF	OFF
Divide by 2	ON	OFF
Divide by 5	OFF	ON
Divide by 10	ON	ON

DIP 5: This switch sets if the board should round up or round down.

DIP 5 ON: Round remaining tickets up.

DIP 5 OFF: Round remaining tickets down.

Example: If the dispenser is set to divide by 10 and the game has 35 tickets to pay out if Round Up is on it will round up to 40 and pay out 4 tickets. If Round Down is on it will round down to 30 and pay out 3 tickets.

DIP 6: This switch sets if the board should count all the tickets off of the game before beginning to payout, or if the board should count off enough to pay a ticket, pay one, and continue counting. Default should be OFF unless otherwise needed.

DIP 6 ON: Game will count down to the first ticket value, pay out a ticket, count down to the next, pay a ticket and so on.

DIP 6 OFF: Board will count all of the tickets off of the game then pay out all of the tickets at once.

Example: If the dispenser is set to divide by 10 and the player wins 40 tickets, if DIP 6 is ON the game will count to 30, pay out a ticket, count to 20, pay a ticket, count to 10, pay a ticket then count to 0 and pay a ticket. If DIP 6 is OFF, the game will count from 40 to 0 and pay out 4 tickets.

DIP 7: This switch sets the speed at which the board will attempt to count the tickets off of the game. The faster setting is generally preferable unless the game can't keep up with it, at which point the slower setting should be used. If the board is paying out far too many tickets this is generally the problem, try the slower setting.

DIP 7 ON: This is the slower count down speed.

DIP 7 OFF: This is the faster count down speed.

DIP 8: This switch sets the type of signal the board sends to the ticket dispenser. Generally setting this to OFF will work, but if the board isn't able to communicate with the ticket dispenser properly (or the payout is erratic) try turning this setting ON.

DIP 8 ON: A few ticket dispensers need this setting.

DIP 8 OFF: The majority of supported ticket dispensers will work with this setting.

DIP 9: This switch sets if the board should wait until it reaches its lowest ticket value to pay out a ticket instead of rounding up or down. This setting is mostly used for machines that pay out one at a time many times over, such as coin pushers. NOTE: This setting overrides DIP 5.

DIP 9 ON: Board will wait until it gets enough tickets to pay out before doing anything, even if that means keeping tickets from game to game. This setting overrides the round up or down setting as it is no longer relevant.

DIP 9 OFF: The board will operate normally, rounding up or down as set.

Example: If the dispensers are set to divide by 10, the player has won 28 tickets, and DIP 9 is OFF - then 2 tickets will be paid out and possibly a third depending on if you have it set to round up or down. If DIP 9 is ON then it would pay out 2 tickets and remember it has another 8 to go. If the player wins another 5 tickets in the next game then it would pay out 1 ticket and remember it now has 3 left over.

Most Common Use: This has been used on machines such as the Willy Wonka coin pusher which dispenses one ticket every few shots. Tickets with a value of 5 were used so the board would count up to 5 tickets then dispense one.

DIP 10: This switch sets NJ Mode of operation ON or OFF. In NJ Mode the board will count all the tickets off of the game, erase them, and pay out your set number of tickets every time regardless of what the game wants to pay out. This is used where a set number of tickets needs to be dispensed every game.

DIP 10 ON: NJ Mode is enabled, please see NJ MODE OPERATION below for its DIP switch settings.

DIP 10 OFF: Normal Operation, as described above.

#### NJ MODE OPERATION:

DIP 1-6: These switches set the number of tickets you want the board to pay out every time. Each DIP switch adds its number to the total according to the chart below.

DIP SWITCH	NUMBER OF TICKETS ADDED
DIP 1	1
DIP 2	2
DIP 3	4
DIP 4	8
DIP 5	16
DIP 6	32

Example: If you wanted the board to pay out 10 tickets every time then you would turn DIP 2 and 4 ON, leave the rest OFF. DIP 2 is 2 tickets, DIP 4 is 8 tickets so that's a total of 10 tickets. If you wanted it to pay out 25 tickets then you would turn ON DIP 5, 4, and 1.  $16+8+1=25$ .

DIP 7: This switch sets the speed at which the board will attempt to count the tickets off of the game. The faster setting is generally preferable unless the game can't keep up with it, at which point the slower setting should be used. If using the NJ setting, the faster speed should always be used unless it causes a problem with the game.

DIP 7 ON: This is the slower count down speed.

DIP 7 OFF: This is the faster count down speed.

DIP 8: This switch sets the type of signal the board sends to the ticket dispenser. Generally setting this to OFF will work but if the board isn't able to communicate with the ticket dispenser properly (or the payout is erratic) try turning this setting ON.

DIP 8 ON: A few ticket dispensers need this setting.

DIP 8 OFF: The majority of supported ticket dispensers will work with this setting.

DIP 9: This switch enables dual board mode. Dual board mode allows you to connect two ticket boards together to work in tandem to control two ticket dispensers. This is commonly used to control a 2 player game where both players need to be paid the same amount. In this mode when either side tries to pay out tickets they will be counted off and erased; then the ticket board will pay out its set NJ amount and also signal the other board to pay out its set amount as well. (Note - These amounts may be different from each other if need be.) The signal goes both directions, so if either board is paying out tickets the other will be triggered as well. To use this mode you will need a dual board harness connected on the DISP 2 port, and both boards must have NJ Mode and Dual Board Mode turned on.

DIP 9 ON: Dual board mode enabled.

DIP 9 OFF: Normal NJ mode enabled.

Example: A 2 player game with a dispenser at each end is being played; the game is set to pay out 20 tickets to each player. At the end of the game player 1 wins 10 tickets, player 2 wins nothing. The board at player 1 erases the 10 tickets and begins paying out the preset 20, while the board at player 2's end is also triggered to pay out its 20. So both players are awarded their 20 tickets regardless of who won or how many tickets they were supposed to get.

DIP 10: This switch sets NJ Mode of operation ON or OFF. In NJ Mode the board will count all the tickets off of the game, erase them, and pay out your set number of tickets every time regardless of what the game wants to pay out. This is used where a set number of tickets needs to be dispensed every game.

DIP 10 ON: NJ Mode is enabled, as it should be if you are using these NJ DIP switch instructions.

DIP 10 OFF: Normal Operation, as described in above Normal Operation Mode instructions.

## Common Problems:

- LED is ON Solid and tickets aren't being dispensed: Your ticket dispenser or dispensers are empty, please refill them and press the Ticket Sw to dispense all tickets owed.
- LED is ON Solid and tickets are only being dispensed from dispenser 2: Dispenser 1 is empty, all tickets are dispensed from dispenser 2 until 1 is refilled. Press Ticket Sw once refilled if payout doesn't start automatically.
- LED is Flashing and board won't respond: There is an error in your DIP switch settings. Please correct it and restart the board. The most common problem is DISP 2 being set to a higher value than DISP 1.
- Too many tickets are dispensed: Try using the slower ticket setting, sometimes the game won't keep up with the board and too many tickets are counted.
- Tickets are counted off of the game but not dispensed: Check that DISP 1 isn't set to no payout (DIP 1 and 2 OFF.) Try changing dispenser type and restart board. Hold down Ticket Sw for 2 seconds to test dispenser operation.
- Tickets aren't being counted off of the game: Try using the slower ticket setting.

- A random number of tickets are dispensed: Try using the slower ticket setting or the other dispenser type setting.